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**Remarks****Introduction**

5           Claims 1 through 20 are pending in the application. Claims 1, 10 and 20 are the independent claims. There are no multiple dependent claims. No new claims have been added.

**Claim Rejection 35 USC §103**

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**Claims 1-3, 5-7 rejected in light of Waud in view of Nystrom and Wallace**

          The examiner rejected claims 1 - 3 and 5 - 7, under 35 USC §103(a) in light of U.S. Patent 3,682,507, granted to Cornelius Byron Waud (Waud),  
15 in view of U.S. Patent 5,746,039, granted to Robert G. Nystrom (Nystrom), and in view of U.S. Patent 4,325,985, granted to Richard B. Wallace (Wallance).

          It appears that the examiner rejected claim 1 in light of Waud and  
20 Nystrom, with Nystrom teaching the coating of the fastener and Waud teaching all the remaining elements of claim 1.

          By this paper, claim 1 has been amended. Claim 1 now calls for a connection between a fastener and masonry support structure. Support for this amendment is found in the specification at page 4, line 23 and page 11,  
25 line 26 and in figures 1 and 2.

          Waud does not teach a fastener connected to a masonry support structure. Waud only teaches connecting a thin sheet of material to a thicker sheet spaced by a predetermined thickness of insulating material. There is no suggestion in Waud to make the combination suggested by the  
30 examiner, or the combination as now claimed.

          In addition, the examiner cites column 3, line 55 of Nystrom for the teaching to add a coating to the fastener of Waud. We have reviewed the cited material in U.S. Patent 5,746,039, but not U.S. Patent 5,304,023 which is incorporated by reference, and can find nothing in its description of  
35 an adhesive coating on a fastener that is suitable for bonding to a painted

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1 surface that suggests the connection of a fastener to a masonry structure in  
the claims as now amended.

Finally, we do not believe that Waud teaches all of the elements of the  
fastener. The claims as originally filed and as amended call for: "material  
5 transfer means within said second diameter extending from a location  
adjacent said tip to a location adjacent said second thread."

For the reasons stated above, we believe claim 1 is allowable over the  
art cited by the examiner.

10 It appears that the examiner rejected claim 2 in light of Waud,  
Nystrom and Wallace, with Waud and Nystrom teaching the elements of  
claim 1 and Wallace teaching the coating of the fastener with a  
microencapsulated adhesive as added by claim 2.

Claim 2 depends from claim 1, incorporating all of its limitations. We  
15 believe claim 1 is allowable over the prior art cited by the examiner, and so  
claim 2 is also allowable.

It appears that the examiner rejected claim 3 in light of Waud and  
Nystrom, with Nystrom and Waud teaching the coated fastener of claim 1  
20 and Waud teaching the added element of "a radially extending wing" of claim  
3.

We would like to point out that the wings in Waud, described at  
column 4, line 4 are used for a different purpose. They actually prevent the  
fastener from extending deeper into the purlin.

25 Furthermore, claim 3 depends from claim 1, incorporating all of its  
limitations. We believe claim 1 is allowable over the prior art cited by the  
examiner, and so claim 3 is also allowable.

It appears that the examiner rejected claim 5 in light of Waud and  
30 Nystrom, with Nystrom and Waud teaching the coated fastener of claim 1,  
and Waud teaching the added element of "buttress threads" of claim 5.

We would like to point out that buttress threads are defined in the  
application as originally filed at page 8, line 10. We find no description of  
buttress threads in Waud, nor do the threads shown in figure 1 of Waud  
35 appear to fit the definition provided in the specification of the present  
application.

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1 Furthermore, claim 5 depends from claim 1, incorporating all of its limitations. We believe claim 1 is allowable over the prior art cited by the examiner, and so claim 5 is also allowable.

5 It appears that the examiner rejected claim 6 in light of Waud and Nystrom, with Nystrom and Waud teaching the coated fastener of claim 1, and Waud teaching the added element of a "thread crest diameter which is substantially equal" over the length of the thread.

Claim 6 depends from claim 1, incorporating all of its limitations. We  
10 believe claim 1 is allowable over the prior art cited by the examiner, and so claim 6 is also allowable.

It appears that the examiner rejected claim 7 in light of Waud and Nystrom, wherein Nystrom and Waud teach the coated fastener and the  
15 added element of the coating being a polymer is a matter of obvious design choice.

Claim 7 depends from claim 1, incorporating all of its limitations. We believe claim 1 is allowable over the prior art cited by the examiner, and so claim 7 is also allowable.

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The examiner rejected claim 4, under 35 USC §103(a) in light of Waud in view of Wallace, and in view of U.S. Patent 4,257,307, granted to Werner Regensburger (Regensburger).

It appears that the examiner rejected claim 4 in light of Waud in view  
25 of Wallace and Regensburger, with Waud and Wallace teaching all of the elements of claim 1 and Regensburger supplying the teaching of a "carbide drill point" added by claim 4.

Claim 4 depends from claim 1, incorporating all of its limitations. We believe claim 1 is allowable over the prior art cited by the examiner, and so  
30 claim 4 is also allowable.

The examiner rejected claims 8 and 9, under 35 USC §103(a) in light of Waud in view of Wallace, and in view of U.S. Patent Reissue 34,969, granted to Tony L. Dixon et al (Dixon).

35 It appears that the examiner rejected claim 8 in light of Waud and Wallace and Dixon, with Waud and Wallace teaching all of the elements of

1 claim 1, and Dixon supplying the teaching of a "protuberance extending  
helically between adjacent convolutions of at least one of said first and  
second threads" added by claim 8.

We note that Dixon is a masonry anchor; however, Dixon does not  
5 teach a self-drilling masonry anchor. Claim 8 depends from claim 1,  
incorporating all of its limitations. We believe claim 1 is allowable over the  
prior art cited by the examiner, and so claim 8 is also allowable.

It appears that the examiner rejected claim 9 in light of Waud and  
10 Wallace and Dixon, with Waud and Wallace teaching all of the elements of  
claim 1, Dixon supplying the teaching of a "protuberance extending helically  
between adjacent convolutions of at least one of said first and second  
threads" added by claim 8, and Dixon also teaching that the "protuberance  
has a crest diameter greater than that of the adjacent convolutions" as added  
15 by original claim 9.

First, we would like to note that by this amendment, we have  
amended claim 9 to call for the "protuberance" to have a "crest diameter less  
than that of the adjacent convolutions". No new matter is added. Support  
for this amendment is found in the specification as originally filed at page 8,  
20 lines 18 and 26, and also in figures 3 through 7.

We note that Dixon is a masonry anchor; however, Dixon does not  
teach a self-drilling masonry anchor. Claim 9 depends from claim 8 and 1,  
incorporating all of their limitations. We believe claim 1 is allowable over the  
prior art cited by the examiner, and so claim 8 is also allowable.  
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The examiner rejected claims 10 - 14 under 35 USC §103(a) in light of  
Waud, in view of Wallace and U.S. Patent 5,611,652, granted to Richard J.  
Duffy et al (Duffy).

30 It appears that the examiner rejected claim 10 in light of Waud,  
Wallace, Duffy and the general level of skill in the art, with Waud teaching  
the structural elements of the fastener, Wallace teaching the coating of the  
fastener, Duffy teaching a resin-coated fastener, and it being an obvious  
matter of design choice to form the resin into a "bead".

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1 First, we respectfully disagree that it is a matter of obvious design choice to form a "bead" from resin on a fastener, and respectfully request that the examiner provide specific teaching of this element.

Second, by this paper, claim 1 has been amended. Claim 1 now calls  
5 for a connection between a fastener and masonry support structure. Support for this amendment is found in the specification at page 4, line 23 and page 11, line 26 and in figures 1 and 2.

Waud does not teach a fastener connected to a masonry support structure. Waud only teaches connecting a thin sheet of material to a  
10 thicker sheet spaced by a predetermined thickness of insulating material. There is no suggestion in Waud to make the combination suggested by the examiner, or the combination as now claimed.

For the reasons stated above, we believe claim 10 is allowable over the art cited by the examiner.

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Claim 11, which depends from claim 10, was further rejected, because the examiner argues that Wallace teaches a "bead" composed of "hardener, a resin and nylon powder".

Claim 11 depends from claim 10, incorporating all of its limitations.  
20 We believe claim 10 is allowable over the prior art cited by the examiner, and so claim 11 is also allowable.

Claim 12, which depends from claim 11, was rejected, because the  
25 examiner argues that a "bead" that "has a generally cardioid-shaped configuration which subtends substantially 360° around the axis of the shank" is a matter of obvious design choice.

We respectfully disagree that forming the specifically claimed cardioid-shaped bead is a matter of obvious design choice, and respectfully  
30 request that the examiner provide specific teaching of this element.

Furthermore, claim 12 depends from claims 10 and 11, incorporating all of their limitations. We believe claim 10 is allowable over the prior art cited by the examiner, and so claim 12 is also allowable.

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1        Claim 13 which depends from claim 11, was rejected, because the  
examiner considers it a matter of obvious design choice to use "30% nylon  
powder by volume" in the bead.

First, we respectfully disagree that it is a matter of obvious design  
5 choice to form a "bead" with the specific amount of nylon powder, and  
respectfully request that the examiner provide specific teaching of this  
element.

Claim 13 depends from claims 10 and 11, incorporating all of their  
limitations. We believe claim 10 is allowable over the prior art cited by the  
10 examiner, and so claim 13 is also allowable.

Claim 14 which depends from claim 11, was rejected, because the  
examiner considers it a matter of obvious design choice to use the resin,  
15 hardener and nylon powder in the bead in the specific amounts claimed.

First, we respectfully disagree that it is a matter of obvious design  
choice to form a "bead" with the specified amounts of nylon powder, resin  
and hardener and respectfully request that the examiner provide specific  
teaching of this element.

20        Claim 14 depends from claims 10 and 11, incorporating all of their  
limitations. We believe claim 10 is allowable over the prior art cited by the  
examiner, and so claim 14 is also allowable.

It appears that the examiner rejected claim 15, which depends from  
25 claim 10, in light of Waud, Wallace, Duffy and the general level of skill in the  
art, with Waud teaching the structural elements of the fastener, Wallace  
teaching the coating of the fastener with a microencapsulated adhesive,  
Duffy teaching a resin-coated fastener, and it being an obvious matter of  
design choice to form the resin into a "bead".

30        Since claim 15, depends from claim 10, we believe that claim 15 is  
now allowable for the reasons stated with respect to claim 10. We also  
believe claim 15 is allowable for the same reasons advance with respect to  
claim 2.

35        It appears that the examiner rejected claim 16, which depends from  
claim 10, in light of Waud, Wallace, Duffy and the general level of skill in the

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1 art, with Waud teaching the structural elements of the fastener and the  
"radially extending wing", Wallace teaching the coating of the fastener,  
Duffy teaching a resin-coated fastener, and it being an obvious matter of  
design choice to form the resin into a "bead".

5 Since claim 16, depends from claim 10, we believe that claim 16 is  
now allowable for the reasons stated with respect to claims 10. We also  
believe claim 16 is allowable for the same reasons advance with respect to  
claim 3.

10 It appears that the examiner rejected claim 17, which depends from  
claim 10, in light of Waud, Wallace, Duffy, Regensburger and the general  
level of skill in the art, with Waud teaching most of the structural elements  
of the fastener, Regensburger supplying the teaching of a "carbide drill  
point", Wallace teaching the coating of the fastener, Duffy teaching a  
15 resin-coated fastener, and it being an obvious matter of design choice to  
form the resin into a "bead".

Since claim 17, depends from claim 10, we believe that claim 17 is  
now allowable for the reasons stated with respect to claims 10. We also  
believe claim 17 is allowable for the same reasons advance with respect to  
20 claim 4.

It appears that the examiner rejected claim 18, which depends from  
claim 10, in light of Waud, Wallace, Duffy, and the general level of skill in  
the art, with Waud teaching the structural elements of the fastener,  
25 including the "buttress threads", Wallace teaching the coating of the  
fastener, Duffy teaching a resin-coated fastener, and it being an obvious  
matter of design choice to form the resin into a "bead".

Since claim 18, depends from claim 10, we believe that claim 17 is  
now allowable for the reasons stated with respect to claims 10. We also  
30 believe claim 18 is allowable for the same reasons advance with respect to  
claim 5.

It appears that the examiner rejected claim 19, which depends from  
claim 10, in light of Waud, Wallace, Duffy, and the general level of skill in  
35 the art, with Waud teaching the structural elements of the fastener,  
including "uniform axial spacing" of the thread, Wallace teaching the coating

1 of the fastener, Duffy teaching a resin-coated fastener, and it being an  
obvious matter of design choice to form the resin into a "bead" and to form  
the proximal portion and the first intermediate portion with specified axial  
dimensions.

5 Since claim 19, depends from claim 10, we believe that claim 19 is  
now allowable for the reasons stated with respect to claims 10.

It appears that the examiner rejected claim 20 in light of Waud,  
Wallace, Duffy and the general level of skill in the art, with Waud teaching  
10 the structural elements of the fastener, Wallace teaching the coating of the  
fastener, Duffy teaching a resin-coated fastener, and it being an obvious  
matter of design choice to form the resin into a "bead".

First, we respectfully disagree that it is a matter of obvious design  
choice to form a "bead" from resin on a fastener, and respectfully request  
15 that the examiner provide specific teaching of this element.

Second, by this paper, claim 1 has been amended. Claim 1 now  
clearly calls for a connection between a self-drilling fastener and masonry  
support structure, with the masonry support structure being positively  
claimed. Waud does not teach a fastener connected to a masonry support  
20 structure. Waud only teaches connecting a thin sheet of material to a  
thicker sheet spaced by a predetermined thickness of insulating material.  
There is no suggestion in Waud to make the combination suggested by the  
examiner, or the combination as now claimed.

Second, the examiner has failed to state which piece of prior art  
25 teaches the suitability of "epoxy" as a resin for use in a masonry connection,  
and we respectfully request the examiner to provide specific teaching of this  
element.

For the reasons stated above, we believe claim 20 is allowable over  
the art cited by the examiner.

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### Conclusion

Submitted with this amendment is a new information disclosure  
statement. We request examination of the claims in light of the amendments  
35 made herein and the prior art provided in the information disclosure  
statement.

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**AMENDED CLAIMS IN MARKED-UP FORM**

1. (Twice amended) A [fastener] connection comprising:

5 a masonry support structure and a fastener received in said masonry support structure, said fastener comprising:

head means comprising a generally planar engagement surface and drive means for receiving an applied torque;

a shank axially extending from said head means at a proximal end to a distal end terminating at a tip, said shank comprising a proximal portion  
10 defining a first diameter adjacent said shank proximal end and a distal portion having a second diameter less than said first diameter adjacent said shank distal end, a first thread extending helically along a portion of said proximal portion and a second thread extending helically along a portion of said distal portion, said shank distal end defining material transfer means within said  
15 second diameter extending from a location adjacent said tip to a location adjacent said second thread;

a coating comprising a resin or an adhesive in a micro-encapsulated form disposed over at least one of the group consisting of said shank distal portion, said shank proximal portion, said first thread and said second thread;  
20 and

self-drilling means adjacent said shank tip for drilling into [a] said support structure.

2. (Once amended) The [fastener] connection of claim 1, wherein said  
25 coating is an adhesive in a microencapsulated form.

3. (Once amended) The [fastener] connection of claim 1 further comprising a radially extending wing extending from said shank distal portion.

30 4. (Once amended) The [fastener] connection of claim 1, wherein said self-drilling means comprises a carbide drill point.

5. (Once amended) The [fastener] connection of claim 1, wherein said first and second threads are buttress threads.

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1 6. (Once amended) The [fastener] connection of claim 1, wherein said first thread defines a first thread crest diameter which is substantially equal over the length of said first thread and said second thread crest diameter is substantially equal over the length of said second thread.

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7. (Once amended) The [fastener] connection of claim 1, wherein the coating is a polymer.

8. (Once amended) The [fastener] connection of claim 1 comprising a  
10 protuberance extending helically between adjacent convolutions of at least one of said first or second threads.

9. (Once amended) The [fastener] connection of claim 8, wherein the protuberance has a crest diameter [greater] less than that of adjacent  
15 convolutions.

10. (Once amended) A [fastener] connection comprising:  
a masonry support structure and a fastener received in said masonry support structure, said fastener comprising:  
20 head means comprising a generally planar engagement surface and drive means for receiving an applied torque;  
a shank axially extending from said head means at a proximal end to a distal end terminating at a tip comprising self-drilling means for drilling into [a] said support structure, said shank comprising a proximal portion adjacent  
25 said shank proximal end, a first intermediate portion adjacent said proximal portion, a second intermediate portion between said first intermediate portion and said tip and a thread extending helically along said intermediate portions; and  
a resin bead applied to said first intermediate portion.

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11. (Once amended) The [fastener] connection of claim 10, wherein said bead is composed of a hardener, a resin and nylon powder.

12. (Once amended) The [fastener] connection of claim 10, wherein said  
35 bead has a generally cardioid-shaped configuration which subtends substantially 360° around the axis of the shank.

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13. (Once amended) The [fastener] connection of claim 11, wherein said bead is composed of approximately 30% nylon powder by volume.

5 14. (Once amended) The [fastener] connection of claim 11, wherein said bead is composed of a formulation that was made with approximately five milliliters of hardener, five milliliters of resin and five milliliters of nylon powder.

10 15. (Once amended) The [fastener] connection of claim 10 further comprising an adhesive in a microencapsulated form applied to said second intermediate portion.

16. (Once amended) The [fastener] connection of claim 10 further  
15 comprising a radially extending wing extending from said shank distal portion.

17. (Once amended) The [fastener] connection of claim 10, wherein said self-drilling means comprises a carbide drill point.

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18. (Once amended) The [fastener] connection of claim 10, wherein said thread is a buttress thread.

19. (Once amended) The [fastener] connection of claim 10, wherein said  
25 thread has a generally uniform axial spacing S and said proximal portion extends axially a distance ranging between 2-3 S and said first intermediate portion extends axially a distance approximately 4-5 S.

20. (Once amended) A [fastener for anchoring into a masonry support  
30 structure] connection comprising:

a masonry support structure and a fastener received in said masonry support structure, said fastener comprising;

a head comprising an engagement surface and drive means for receiving an applied torque;

35 a shank axially extending from said head at a proximal end to a distal end terminating at a tip, said shank comprising a proximal portion adjacent

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1 said shank proximal end, an intermediate portion between said proximal  
portion and said tip and a thread extending helically along said intermediate  
portion, said shank tip comprising self-drilling means for drilling into the  
support structure; and

5 a bead comprising an epoxy resin applied to said first intermediate  
portion,

so that upon driving said fastener into said structure said thread  
mechanically engages said structure and said shank bonds with said  
structure.

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